

ready made false teeth as ready made arch supports.

Walking on stone pavements while wearing bad shoes is the most prevalent cause of flat foot. Shop employees who stand for hours on stone floors and frequently lift heavy commodities often have flat foot. Soft-soled, weak-shanked shoes on stone pavements are a ridiculously frequent cause.

Not much progress will be made against flat foot until the whole problem is taken up by our profession and studied intelligently and in good faith.

The impression of the sole of the foot on a board or glass plate is no test whatsoever of a flat foot. If the foot is markedly flat it can be seen at a glance. If only slightly flat, the impress made by the sole may be that of a presumably normal foot. The leg muscles must be tested, and look for abduction of the foot in front of the ankle, with inward buckling of the arch and shifting of the scaphoid bone on the head of the astragalus.

### GONORRHOEA IN WOMEN.\*

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Gonorrhoea in women, although a most serious and frequently fatal disease, the immediate and remote consequences of which are probably responsible for more suffering and unhappiness than all other diseases combined, is nevertheless more often neglected than any other pathological condition of the female genito-urinary tract. At the present time when so much depends upon the health of our armed forces the necessity for its detection and eradication is of first importance, for notwithstanding the measures directed toward the suppression of prostitution and illicit intercourse, prophylactic treatment and punishment for concealment, the number of infections among our soldiers at home and abroad is sufficient to cause the army officials grave concern as it ranks first in the list of infectious diseases as a cause of physical debility. In a recent communication the surgeon general of the public health service states that venereal disease is the most serious problem from the standpoint of military efficiency which confronts the army authorities today.

This paper is based upon the examination of seven hundred and thirty-one women arrested upon the charge of prostitution or vagrancy and the treatment of one hundred and seventy-five, the majority of whom were confined in a large ward set aside for that purpose by the Board of Health in the San Francisco County Hospital. Of this number one hundred and forty-seven patients were found to be infected with gonorrhoea, two hundred and forty-three with syphilis and ninety-six with both gonorrhoea and syphilis.

The diagnosis of gonorrhoea was based upon the detection of the organism in the secretions or the presence of a two or three plus positive complement fixation test together with characteristic clinical symptoms. Many cases were doubtlessly overlooked even in those subjected to repeated examinations for the difficulty of detection of gonococci in women, especially in chronic infections, is univer-

sally recognized and the fallibility of the complement fixation test in its present form is likewise understood. The absence of subjective symptoms is of little importance but a history of pelvic inflammation and menstrual irregularities, burning during urination and vesical irritability at the time the discharge first made its appearance is most suggestive.

The following procedure is followed in the investigation of our cases:

Smears are first obtained for microscopical examination by compression of the Bartholinian glands between the two index fingers. Parenthetically permit me to advise precaution during this procedure. Recently while examining an infected gland a small amount of secretion was forcibly ejected a distance of almost two feet, narrowly missing the eyes of the examiner.

Following the examination of these glands, smears are obtained from the urethra by forcibly stroking the canal from the internal to the external meatus. In the absence of microscopical secretion the two glass test is of decided value in the diagnosis of urethral conditions in women as well as in men. After a vaginal douche of sterile water or salt solution and a thorough cleansing of the external genitals the urine is voided in two portions. Cloudiness of the first portion or the detection of pus microscopically denotes the presence of urethritis. I would like to emphasize the necessity for endoscopy in women, a procedure which has not received the attention it deserves. The Farrar female endoscope which is a Kelly urethroscope with a lamp at the distal extremity is most useful in the examination and treatment of the female urethra. Following the urethral examination an effort is next made to obtain secretion from Skene's glands by compressing them between the index fingers. This is a procedure frequently overlooked by the genito-urinary surgeon as well as the general practitioner and its neglect is often responsible for failure in the diagnosis and treatment of these cases. In a number of instances the only evidence of gonorrhoea was found in secretion expressed in the above manner from one of these small glands.

Smears are obtained from the cervix by compressing the anterior and posterior lips several times between the blades of a bivalve speculum after a thorough cleansing with cotton tipped applicators. Gonococci are more frequently demonstrated following this traumatism. It is also sometimes possible to obtain positive smears by massaging the Fallopian tubes and fundus of the uterus in the direction of the cervix. Obviously these methods should not be followed in the presence of an acute infection. In children and virgins the endoscope is of value for examination and treatment of both the cervix and vagina.

In a series of one hundred and twelve cases, either microscopically positive or clinically positive together with a two or three plus positive complement fixation, the infection was located in the cervix in sixty-nine patients, in the urethra in twenty-eight and in one or both Bartholinian glands in twenty-two patients.

In ninety cases which were clinically positive only the urethra was involved in thirty-nine, the

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cervix in twenty-nine and one or both Bartholinian glands in twenty-seven.

It is to be noted that in the positive cases, a large majority of which were chronic, the cervix was most frequently involved, next the urethra and lastly the Bartholinian glands, while in the cases which were clinically positive only the number of urethral infections exceeded those of the cervix by about forty per cent. The frequency of Bartholinian gland involvement in both positive and negative cases is also of interest.

While infection of the lower genito-urinary tract is most commonly associated with the gonococcus, other organisms are frequently responsible.

In two hundred and ninety-four suspicious cases the gonococcus was the offender in one hundred and thirty-five and other organisms in ninety. Parenthetically permit me to call attention to the fact that a non specific urethritis usually associated with a trignonitis is very often responsible for urethral discharge and urinary disturbances in women. In these conditions the shortness of the urethra, together with its close proximity to the vagina and rectum, are without doubt the most important etiological factors.

In fifty suspicious cervixes in which gonococci could not be demonstrated, staphylococci were present in thirty-six, various diplococci in twenty-nine, streptococci in nine, bacilli in seven and diplobacilli in two. In twenty-five suspicious urethrae in which it was impossible to find gram negative intracellular organisms other diplococci were present in eighteen, staphylococci in eight, streptococci in two, diplobacilli in two and other bacilli in one. In twenty-two suspicious Bartholinian glands in which the gonococcus was not detected other diplococci were found in twelve, staphylococci in eight, streptococci in five and bacilli in three.

The frequency of the coccus in these locations is interesting, differing as it does from the upper urinary tract in the female where the colon bacillus is usually responsible for the infection.

Of greater importance however is the prevalence of gram positive and other diplococci. In this connection the experiments of Edward E. Johnson of San Francisco are illuminating. He claims to have removed from the peritoneal cavity of guinea pigs, after the injection of certain cultures of gram positive diplococci, a gram negative intracellular diplococcus having all the cultural and morphological characteristics of the gonococcus, inoculation with the latter producing gonorrhoeal ophthalmia. These gram negative organisms regained their gram positive characteristics upon reculturing upon acid media. This would explain the infectiousness of many of these women in whose genital organs the gram positive and degenerative forms of diplococci are quite common but the characteristic gram negative intracellular diplococci so difficult of demonstration.

As the gonorrhoeal complement fixation test is a genuine antigen antibody test and no other disease will give a positive reaction it is of value from a positive standpoint. In a series of one

thousand cases Shupe did not obtain a positive reaction except in the presence of gonorrhoea unless the patient had received antigonococcus vaccine. It will give a positive in fifty to sixty per cent. of cases of pyosalpingitis and is consequently of value in differentiating pelvic inflammatory conditions in women.

For the following reasons it is of less value than the Wassermann complement fixation test for syphilis, a negative reaction being of little diagnostic importance:

1. The gonococcus antibody is usually produced in small amounts.
2. It is difficult to prepare and preserve a polyvalent gonococcic antigen.
3. There are a large number of different strains of gonococcus.
4. Except in vulvo-vaginitis in children a positive reaction is seldom obtained in the female unless the infection has reached the cervix.

The technique in our series of one hundred and sixty-three cases is identical with that of the Wassermann except that the antigen used was the gonococcus antigen prepared by Parke, Davis & Company. It is always titrated before using.

Twenty-three plus and forty-one two-plus positives were obtained, making a total of sixty-one cases in which we considered the serological findings sufficient evidence of gonorrhoeal infection. Of this number ten were microscopically positive while two had a previous history of gonorrhoea. Seven were microscopically and clinically positive and sixteen were clinically positive only. The balance were both clinically and microscopically negative.

Gradwohl, using the Parke, Davis antigen, claims fifty-six per cent. more positives by using a technique similar to the Gradwohl modification of the Hecht-Weinberg test for syphilis. This embodies the use of unheated sera and the utilization of the natural complement and anti-sheep amboceptor. We have used this method in a small series of cases but so far find it of little additional value.

#### TREATMENT.

Acute urethritis is treated by rest in bed, restricted diet, large quantities of liquids internally, sedatives such as hyoscyamus and drugs rendering the urine alkaline such as potassium acetate and occasionally by the injection of ten per cent. argyrol solution. Local treatment is usually reserved however for subacute and chronic cases. We have obtained the best results in the latter by the instillation of one to three per cent. solutions of silver nitrate and the application of a ten per cent. solution of the same drug through the female urethroscope. In skenitis the ducts should be incised, cauterized or fulgurated by means of a fine wire. Whereas either of these measures will cure the condition, instillations are of little value, simply resulting in loss of time.

Removal of the Bartholinian glands or fulguration is likewise the only satisfactory method of treating infections of these organs.

In cervicitis we have obtained good results in some cases from the use of twenty per cent. solu-

tions of silver nitrate following a thorough cleansing of the canal. In a limited number of private patients I have found fulguration of decided value in this location. Occasionally amputation of the cervix will be required. In the presence of gonorrhoeal pus tubes treatment directed toward the cervix alone will be of little value as this source of reinfection must naturally be eradicated before a cure can be expected.

Gonorrhoeal endometritis is an uncommon condition and the use of the overworked curette following this diagnosis has resulted in much harm and has seldom been of benefit to the patient.

Finally permit me to emphasize the fact that radical surgical measures are frequently indicated in Neisser infections and that temporizing with injections, etc., is unjustifiable, merely resulting in the loss of time. It must be admitted that it is often impossible to positively assert that a gonorrhoea is cured, for notwithstanding the absence of objective and subjective symptoms some women apparently remain capable of infection as long as they live. This fact, however, should not discourage us in our attempts to conquer a most serious disease.

Thanks are due Dr. Agnes Walker and J. T. Boyer of the San Francisco Health Department and Dr. Maurice Heppner of the San Francisco Hospital for their valuable assistance in the examination and treatment of these cases.

Shreve Building.

## Book Reviews

**Materia Medica, Pharmacology, Therapeutics and Prescription Writing. For Students and Practitioners.** By Walter A. Bastedo, Ph. G., M. D., Assistant Professor of Clinical Medicine Columbia University. Second Edition, Reset. Octavo of 654 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1918. Cloth, \$4.00 net.

Many workers recognize that the field of pharmacology has become so wide that it is now impossible for one person to speak authoritatively on all of its problems and this holds with double force with respect to the combined subjects of pharmacology and therapeutics. Most of us are looking to the future for a handbook of pharmacology in which the individual drugs shall be discussed by numerous conscientious workers who have devoted time to the drugs they discuss and would therefore be in a position to value the immense literature which has grown up. Until that time comes, we must rely upon general treatises written by one or two persons and such books must have their limitations.

The work of Bastedo is based on the lecture courses given at Columbia University. It is clearly and attractively written and holds one's attention. The publishers have enhanced its value by the use of clear type and proper spacing. The book is written by a clinician evidently for students who intend to enter the practice of medicine. Such students will find valuable hints and suggestions as to treatment and will learn the relation of pharmacology to therapeutics. It is distinctly a textbook, but a good one, hardly full enough for the general practitioner. The views expressed are up to date, but at times seem dogmatic, the reasons not always being given in detail. Some chapters might have been expanded with profit.

The reviewer believes that part of our present

failure in medicine is due to the fact that we have not always attempted to develop the logical or critical ability of our students and have made dogmatic statements, whereas students should be taught to criticize the evidence for their beliefs. Such a critical textbook in pharmacology is lacking. The work of Bastedo has been reprinted several times and has just been revised into a new edition. This would indicate its popularity.

A. C. C.

**Postgraduate Medicine. Prevention and Treatment of Disease.** By Augustus Caillé. Illustrated. N. Y.: Appleton, 1918.

Regarded from the viewpoint of a manual of treatment it is hardly fair to the author to characterize this somewhat sketchy though exhaustive volume as being superficial and therefore unsatisfactory. Rather should this work be read as a most interesting and valuably suggestive epitome of the thoughts on treatment by a man with a world of experience and a vast fund of resources. There is not a field of medicine that is not given recognition and not a mode of treatment that is not given critical notice and mention. A reading of this book will be sure to give one a number of valuable suggestions in any field that can be mentioned.

And yet, one feels that the author has written a book that should be regarded as a collection of the wisdom and experience of a wise and experienced medical man, and not a volume for reference in case of need. Thus the usefulness of Dr. Caillé's book is more in the nature of a postgraduate course in the treatment of disease, than a manual to be consulted when the diagnosis is determined but the treatment still in doubt. A further objection to the adoption of this work as a reference book might be raised from the point of view that nearly all that is taught in this book can be found in general text-books as well as in original sources. It would be a sad commentary on the amount of reading a medical man has done if he were to find much that was new or unfamiliar in all of the thousand pages of the text.

G. H. T.

**Principles of Mental Hygiene.** By Wm. A. White. Introduction by Smith Ely Jelliffe. N. Y.: Macmillan, 1917. Price \$2.00.

Now that the domain of the psychiatrist and alienist is no longer a field that is the peculiar property of the initiated few; now that medical men and women must reckon with the social variation from the normal as well as the physical variations; now that the public conscience is awake to the fact that there is a duty that is owed to those who are handicapped by inferior nervous or mental makeup, it is with genuine pleasure that such a book as this is welcomed. In language that is simple, clear, in a mode of exposition that is authoritative yet kindly, Professor White has given to the profession a volume that will open to many a delightful field in the medical world. Too many of our profession are neglectful of the social side of medicine. This may be through laziness, indifference or through lack of perception or of training, but this field can no longer be ignored. The study of our cases from the social aspect is as essential as that from any other point of view. Social problems are presented to the doctor more frequently than to any other, unless it be the spiritual advisor, whose place the doctor must so often fill. In this world of ours, conflict and adjustment, heredity and environment, stimulus and reaction, individual and herd relations, reason and instinct form the chief motives of our existences. Let us study these things; let us apply our knowledge to our daily round of cases; let us remember to treat the patient as well as the disease. This work is pecu-